All machine and no ghost?

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The more we look at the brain, the less it looks like a device for creating consciousness. Perhaps philosophers will never be able to solve the mystery.



The philosophy of mind is concerned with fundamental questions about consciousness - about its existence and nature. The science of psychology is concerned with its empirical workings - how one mental thing leads to another, basically. The former is a branch of metaphysics, the latter of dynamics. The central defining property of the mind is consciousness, so philosophy of mind is concerned with the existence and nature of consciousness: what is consciousness, why does it exist, how is it related to the body and brain, and how did it come into existence?

These are big, difficult questions. Focus on your current state of consciousness - your experience of seeing, hearing, feeling, thinking, willing, and so on - and ask yourself what kind of being this consciousness is, what its function might be, how it is related to the activity of cells in your brain, what could have brought it about in the course of evolution. Allow yourself to feel the attendant puzzlement, the sense of bafflement: now you are doing philosophy of mind.

Try to imagine a world with no consciousness in it, just clashing quanta in the void and clumps of dead, insensate matter (the way our universe used to be); now add consciousness to it. What difference do you make to things, what is the point of the addition and how can you add consciousness to a world without it? Do you somehow reassemble the material particles? I predict it will seem to you that you have made an enormous difference to your imagined world but you will not understand how the unconscious world and the conscious world fit intelligibly

together. It will seem to you that you have performed a miracle (contrast adding planets to a world containing only gaseous clouds). But does our world really consist of miracles?

We can distinguish five positions on consciousness: eliminativist, dualist, idealist, panpsychist and mysterianist. The eliminativist position attempts to dissolve the problem of explaining consciousness simply by declaring that there isn't any: there is no such thing - no seeing, hearing, thinking, and so on. There is just blank matter; the impression that we are conscious is an illusion. This view is clearly absurd, a form of madness even, and anyway refutes itself since even an illusion is the presence of an experience (it certainly seems to me that I am conscious). There are some who purport to hold this view but they are a tiny (and tinny) minority: they are sentient beings loudly claiming to be mindless zombies.

More subtly, there are many who insist that consciousness just reduces to brain states - a pang of regret, say, is just a surge of chemicals across a synapse. They are collapsers rather than deniers. Though not avowedly eliminative, this kind of view is tacitly a rejection of the very existence of consciousness, because the brain processes held to constitute conscious experience consist of physical events that can exist in the absence of consciousness. Electricity in the brain correlates with mental activity but electricity in your TV presumably does not - so how can electrical processes be the essence of conscious experience? If there is nothing happening but electrochemical activity when I say, "My finger hurts," or, "I love her so," then there is nothing experiential going on when I say those things. So reduction is tantamount to elimination, despite the reductionist's intentions (it's like maintaining that people called "witches" are nothing but harmless old ladies – which is tantamount to saying that there are no witches).

The dualist, by contrast, freely admits that consciousness exists, as well as matter, holding that reality falls into two giant spheres. There

is the physical brain, on the one hand, and the conscious mind, on the other: the twain may meet at some point but they remain distinct

entities. Dualism may be of substances, properties, or even whole universes, but its thrust is that the conscious mind is a thing apart from, and irreducible to, anything that goes on in the body. When I think, my brain indeed whirs but the thinking stands apart from the whirring, as clouds stand aloft from the earth or magnetism exists separately from gravity.

Dualism proposes to give the mind its ontological due but the problem is that it has difficulties organising a rendezvous between the two spheres: how does the mind affect the brain and the brain the mind? Whence the systematic correlation and interaction? And how did the mind come to exist, if not by dint of cerebral upsurges? Dualism makes the mind too separate, thereby precluding intelligible interaction and dependence.

At this point the idealist swooshes in: ladies and gentlemen, there is nothing but mind! There is no problem of interaction with matter because matter is mere illusion - we merely hallucinate brains. The universe is just one vast spirit, or perhaps a population of the same, consisting of nothing but free-floating consciousness, unencumbered and serene. Stars and planets are just perturbations in this cosmic sensorium.

As an imaginative fancy, idealism has its charms but taking it seriously requires an antipathy to matter bordering on the maniacal. Are we to suppose that material reality is just a dream, a baseless fantasy, and that the Big Bang was nothing but the cosmic spirit having a mental sneezing fit? Where did consciousness come from, if not from pre-existing matter? Did God just create centres of consciousness ab initio, with nothing material in the vicinity? Is my body just a figment of my imagination?

Perhaps we would do better to dial idealism back a bit: it is not that everything real is mental but that there is more mentality out there than meets the introspective eye. Perhaps all matter has its mental aspects or moments, its local injection of consciousness. Thus we have panpsychism: even the lowliest of material things has a streak of sentience running through it, like veins in marble. Not just parcels of organic matter, such as lizards and worms, but also plants and bacteria and water molecules and even electrons. Everything has its primitive feelings and minute allotment of sensation.

The cool thing about panpsychism is that it offers a seductively silky explanation of emergence. How does mind emerge from matter? Why - by virtue of the pre-existence of mind in matter. Mind is all around, so we don't need a magic mechanism to spirit it into existence from nowhere - it was already present at the time of the Big Bang, simmering away. (What did the hydrogen atom say to the carbon atom at the time of the Big Bang? My ears are ringing.)

The trouble with panpsychism is that there just isn't any evidence of the universal distribution of consciousness in the material world. Atoms don't act conscious; they act unconscious. And also, what precisely is on their microscopic minds - little atomic concerns? What does it mean to say that atoms have consciousness in some primitive form (often called "proto-consciousness")? They either have real sensations and thoughts or they don't. What is a tiny quantity of consciousness like, exactly? Panpsychism looks a lot like preformationism in biology: we try to explain the emergence of organic life by supposing that it already exists in microscopic form in the pre-life world - as if the just-fertilised egg has a little, fully formed baby curled up in it waiting to expand during gestation.

So where does this leave us? The available options all seem to encounter fairly bone-crushing objections. Here is where I entered the picture, 25 years ago. I could see the problems with the standard theories but I couldn't accept that nature adores a miracle, or that it is simply unintelligible. Consciousness must have evolved from matter somehow but nothing we could contrive or imagine seemed to offer the faintest hope for explanation. Hence, it occurred to me that the problem might lie not in nature but in ourselves: we just don't have the faculties of comprehension that would enable us to remove the sense of mystery. Ontologically, matter and consciousness are woven intelligibly together but epistemologically we are precluded from seeing how. I used Noam Chomsky's notion of "mysteries of nature" to describe the situation as I saw it. Soon, I was being labelled (by Owen Flanagan) a "mysterian", the name of a defunct pop group, and the name stuck.

I am not against the label, understood correctly, but like all labels it suggests an overly simple view of a complex position. At first the view was regarded as eccentric and vaguely disreputable but now it is a standard option - though one with very few adherents. Its primary attraction lies in

the lack of appeal of all the other options, to which supporters of those options are curiously oblivious. People sometimes ask me if I am still a mysterian, as if perhaps the growth of neuroscience has given me pause; they fail to grasp the depth of mystery I sense in the problem. The more we know of the brain, the less it looks like a device for creating consciousness: it's just a big collection of biological cells and a blur of electrical activity - all machine and no ghost.

Latterly, I have come to think that mystery is quite pervasive, even in the hardest of sciences. Physics is a hotbed of mystery: space, time, matter and motion - none of it is free of mysterious elements. The puzzles of quantum theory are just a symptom of this widespread lack of understanding (I discuss this in my latest book, Basic Structures of Reality). The human intellect grasps the natural world obliquely and glancingly, using mathematics to construct abstract representations of concrete phenomena, but what the ultimate nature of things really is remains obscure and hidden. How everything fits together is particularly elusive, perhaps reflecting the disparate cognitive faculties we bring to bear on the world (the senses, introspection, mathematical description). We are far from obtaining a unified theory of all being and there is no guarantee that such a theory is accessible by finite human intelligence.

Some modern philosophers pride themselves on their "naturalism" but real naturalism begins with a proper perspective on our specifically human intelligence. Palaeoanthropologists have taught us that the human brain gradually evolved from ancestral brains, particularly in concert with practical toolmaking, centring on the anatomy of the human hand. This history shaped and constrained the form of intelligence now housed in our skulls (as the lifestyle of other species form their set of cognitive skills). What chance is there that an intelligence geared to making stone tools and grounded in the contingent peculiarities of the human hand can aspire to uncover all the mysteries of the universe? Can omniscience spring from an opposable thumb? It seems unlikely, so why presume that the mysteries of consciousness will be revealed to a thumb-shaped brain like ours?

The "mysterianism" I advocate is really nothing more than the acknowledgment that human intelligence is a local, contingent, temporal, practical and expendable feature of life on earth - an incremental adaptation based on earlier forms of intelligence that no one would regard as faintly omniscient. The current state of the philosophy of mind, from my point of view, is just a reflection of one evolutionary time-slice of a particular bipedal species on a particular humid planet at this fleeting moment in cosmic history - as is everything else about the human animal. There is more ignorance in it than knowledge.

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Philosophy of mind: key texts

Meditations on First Philosophy (1641)

René Descartes

In this, the founding text of the modern philosophy of mind, Descartes argues that there is a "real distinction" between the mind and the body. They are, he says, distinct "substances". We can imagine ourselves existing without a body but there is one thing whose existence cannot be

doubted: the thing that does the doubting. Despite being very different kinds of stuff, the mind and body nonetheless interact. The site of that interaction, Descartes believes, is the pineal gland (a small gland near the centre of the brain).

Ethics (1677)

Baruch Spinoza

Spinoza rejects the premises of Cartesian dualism. For him, mind (or thought) and body (or matter) are not distinct types of stuff but rather "attributes" of a single substance, which he calls deus sive natura ("God or nature").

Select Works (1886)

Thomas Henry Huxley

In an essay entitled "On the Hypothesis that Animals Are Automata, and Its History", Huxley, who once described himself as "Darwin's bulldog", defends the doctrine of "epiphenomenalism". "Our mental conditions," Huxley writes, "are simply the symbols in consciousness of the changes which take place automatically in the organism." In other words, he accepts the Cartesian claim that mind and body are distinct but he rejects the idea that there is any sort of causal interaction between them. On the contrary, the mind is causally inert – it is but an emanation of the brain that

has no effect on it.

The Concept of Mind (1949)

Gilbert Ryle

The first chapter of this book is entitled "Descartes' Myth", and in it Ryle launches a full-frontal assault on what he calls the "dogma of the ghost in the machine". He maintains that Cartesian dualism rests on an error or "category mistake" - the assumption that our mental concepts ("belief", "desire", and so on) function in the same way as those we use to describe the material world. Ryle argues that when we talk about a person's "mind", we're not talking about an entity distinct from his body but rather about his being disposed to behave or act in certain ways - intelligently, stupidly or imaginatively.

Matter and Consciousness (1984)

Paul Churchland

Together with his wife, Patricia, Churchland is the leading living representative of "eliminative materialism". This is the view that what Churchland terms "folk psychology" - the words and concepts we habitually use to describe our inner lives - is wholly mistaken. "[Our] commonsense psychological framework," Churchland writes, "is a false and radically misleading conception of . . . the nature of cognitive activity." What we need instead is a new "neuroscientific account" of it.

The Mysterious Flame (1999)

Colin McGinn

"Consciousness is so familiar," writes McGinn, "that it is hard to appreciate what an odd phenomenon it is." All orthodox explanations of it don't work, he argues. Consciousness is destined to remain "a mystery that human intelligence will never unravel".